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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,959	11/30/2001	Mark Muhlestein	5693P272X	5673

48102 7590 07/03/2007
NETWORK APPLIANCE/BLAKELY
1279 OAKMEAD PARKWAY
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EXAMINER	
KHOSHNOODI, NADIA	
ART UNIT	**PAPER NUMBER**
2137	
MAIL DATE	**DELIVERY MODE**
07/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/010,959	MUHLESTEIN, MARK	
	Examiner	Art Unit	
	Nadia Khoshnoodi	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *4/26/2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-15,42-45,47-60 and 62-75* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-15,42-45,47-60 and 62-75* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 November 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/4-26-2007*.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. *attached*.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/26/2007 has been entered.

Response to Amendment

Claims 5, 16-41, 46, and 61 have been cancelled. Applicant's arguments/amendments with respect to amended claims 1, 42, & 57, previously presented claims 2-4, 6-15, 43-45, 47-56, 58-60, & 62-74, and newly presented claims 75 filed 4/26/2007 have been fully considered, but they are not persuasive.

Response to Arguments

Applicants contend that Tso et al. and Takahashi et al. fail to teach/suggest "selecting a cluster device from a plurality of cluster devices to perform an operation on the object according to a classification of the plurality of cluster devices, wherein the classification of the plurality of cluster devices is predetermined based on a performance criterion, and wherein each of the plurality of cluster devices is a separate device from the server." Examiner respectfully disagrees. Tso et al. teach that each of the plurality of cluster devices is a separate device from the server (col. 8, lines 50-62). Takahashi et al. suggest that before a request is transmitted to a

server/cluster device for an operation to be performed, a load balancing mechanism first determines the current load of each of the server/cluster devices in order to predetermine the performance of each server/cluster based on the operations that the servers/clusters can handle for efficient results (col. 6, lines 46-58). Takahashi et al. suggest motivation for why one of ordinary skill in the art would modify Tso et al., where the motivation is to balance the load more efficiently so that the operations are carried out in a well-balanced manner (par. 24). Thus, the combination of Tso et al. and Takahashi et al. teaches/suggests selecting a cluster device from a plurality of cluster devices to perform an operation on the object according to a classification of the plurality of cluster devices, wherein the classification of the plurality of cluster devices is predetermined based on a performance criterion, and wherein each of the plurality of cluster devices is a separate device from the server.

Furthermore, the Examiner would like to point out that since there are no specific details defining what the classification is specifically based on and if the predetermination is intended to be made in a static or dynamic manner, the Examiner maintains the rejections set forth in the previous office action according to the interpretation detailed above (See MPEP 2111). Also, Examiner strongly encourages Applicants to claim various portions involving how virus scanning is incorporated into the existing limitations in order to narrow the scope of the claims so that they will not be subjected to such broad interpretation in accordance with MPEP 2111.

Due to the reasons stated above, the Examiner maintains rejections with respect to the pending claims. Tso et al. in combination with Takahashi et al. teach the limitations not explicitly disclosed by Tso et al. Therefore, it is the Examiner's conclusion that the pending claims are not patentably distinct or non-obvious over the prior art of record as presented.

Claim Objections

Claim 75 is objected to because of the following informalities: Claim 75 is a newly presented independent claim which consists of the same limitations as independent claim 1 and dependent claim 9. Applicants may remedy this issue by either canceling/amending claim 9 or canceling/amending claim 75 so that there are no duplicate claims within this application. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-4, 6-15, 42-45, 47-60, and 62-75 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant's representatives suggested (during the interview) that the term "predetermined" which was introduced in the amendment is supported in the last paragraph on page 22 which continues onto the top of page 23. The manner in which the claim uses the term "predetermined" is not clearly defined by the portion Applicants' representative pointed out in the Specification since one of ordinary skill in the art would not equate the claimed language "...classification of the plurality of cluster devices is predetermined based on a performance criterion..." with the portion of the Specification "...the filer 130 groups

cluster devices 141 into one or more classes, such as primary and secondary, where all primary cluster devices 141 are assigned, followed by secondary cluster devices 141. This allows an operator to direct the filer 130 to use a first cluster device 141, such as for example available using a relatively rapid connection, exclusively, but when the first cluster device 141 is unavailable for any reason, to fall back to using a second designated cluster device 141, such as for example available using a much less rapid connection." Since the cited portion does not specifically mention how the primary and secondary cluster devices are actually used to carry out operations based on their different classes, it does not equate to classifying the clusters in a manner that is predetermined based on performance criterion.

Claim Rejections - 35 USC § 103

I. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

II. Claims 1, 4, 6-7, 11-12, 14-15, 42, 45, 47-48, 52-53, 55-56, 57, 60, 62-63, 67-68, and 70-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tso et al., US Patent No. 6,088,803, and further in view of Takahashi et al., European Patent App. No. 903901 A2.

As per claims 1, 42, and 57:

Tso et al. substantially teach the method, system, and machine-readable medium for receiving a user request for an object maintained at a server (col. 2, lines 62-66); upon a request from the server, performing an operation on an object at a cluster device, said cluster device

being a separate device from the server, said operation including accessing said object at said server and determining a result of processing said object at said cluster device (col. 2, line 66 – col. 3, line 5); and conditionally allowing access to said object in response to said user request based on said result (col. 3, lines 5-10). Furthermore, Tso et al. teach that there may be multiple cluster devices, where the cluster device has already been established as being a separate device from the server (col. 8, lines 50-62).

Not explicitly disclosed is selecting a cluster device from a plurality of cluster devices to perform an operation on the object according to a classification of the plurality of cluster devices, wherein the classification of the plurality of cluster devices is predetermined based on performance criterion. However, Takahashi et al. teach a load-balancing scheme where the load is measured between a hardware device and each server. Once the number of connections/response time per connection currently managed by the server is assessed, the load condition is used to determine how to distribute incoming service requests (par. 5, technique (b)). Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Tso et al. to select a cluster device out of a plurality of cluster devices with the lowest current load condition assessed for performing an operation on the object. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Takahashi et al. suggest that a load-balancing scheme is necessary in order to maintain stability, as well as a lower response time to service requests, within a network in par. 4.

As per claims 4, 45, and 60:

Tso et al. and Takahashi et al. substantially teach the method, system, and machine-readable medium of claims 1, 42, and 57. Furthermore, Tso et al. teach persistently recording said result of said operation in association with said object (col. 5, lines 1-4).

As per claims 6, 47, and 62:

Tso et al. and Takahashi et al. substantially teach the method, system, and machine-readable medium of claims 1, 42, and 57. Furthermore, Tso et al. teach wherein said operation includes a plurality of processes, each one process being performed at a separate cluster device (col. 5, lines 1-4).

As per claims 7, 48, and 63:

Tso et al. and Takahashi et al. substantially teach the method, system, and machine-readable medium of claims 1, 42, and 57. Furthermore, Tso et al. teach wherein said operation includes at least one of: virus scanning, encryption or decryption, compression or decompression (col. 3, lines 2-5).

As per claim 11:

Tso et al. and Takahashi et al. substantially teach the method of claim 1. Furthermore, Tso et al. teach at a first time, recording said result of said operation for said object; and at a second time, conditioning said operation on said result (col. 5, lines 1-6).

As per claims 12, 53, and 68:

Tso et al. and Takahashi et al. substantially teach the method, system, and machine-readable medium of claims 1, 42, and 57. Furthermore, Tso et al. teach wherein said result includes at least one of: a time when said operation was performed, remedial measures taken in

response to said operation, whether access was allowed in response to said operation (col. 5, lines 6-7).

As per claims 14, 55, and 70:

Tso et al. and Takahashi et al. substantially teach the method, system, and machine-readable medium of claims 1, 42, and 57. Furthermore, Tso et al. teach wherein said operation is performed before allowing access to said object for requests including read access (col. 3, lines 2-10).

As per claims 15, 56, and 71:

Tso et al. and Takahashi et al. substantially teach the method, system, and machine-readable medium of claims 1, 42, and 57. Furthermore, Tso et al. teach wherein said operation is performed after allowing access to said object for requests including write access (col. 5, lines 6-13).

As per claims 52 and 67:

Tso et al. and Takahashi et al. substantially teach the system, and machine-readable medium of claims 42 and 57. Furthermore, Tso et al. teach wherein a second operation on said at least one of the set of objects is conditioned on the result (col. 5, lines 1-13).

As per claims 72, 73, and 74:

Tso et al. and Takahashi et al. substantially teach the method, apparatus, and machine-readable medium if claims 1, 42, and 57. Furthermore, Tso et al. teach wherein said processing comprises scanning (col. 2, line 66 – col. 3, line 5).

III. Claims 2, 43, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tso et al., US Patent No. 6,088,803 and Takahashi et al., European Patent App. No. 903901 A2, as applied to claims 1, 42, and 57 above and further in view of Ji et al., US Patent No. 5,623,600. As per claims 2, 43, and 58:

Tso et al. and Takahashi et al. substantially teach a method, an apparatus, and memory/mass storage as in claims 1, 42, and 57. Not explicitly disclosed is including conditioning said operation on a feature of said object, said feature including at least one of: a file name, a file type, a file-system share. However, Ji et al. teach that the file type of the requested file is taken into consideration for the scanning process. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Tso et al. and Takahashi et al. to use the file type of the requested file in order to determine whether or not it is possible for that file to be a virus based on its extension. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Ji et al. teach that if the file type of the requested file is not an executable then extra time should not be used to scan it in col. 7, lines 33-40.

IV. Claims 3, 44, and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tso et al., US Patent No. 6,088,803 and Takahashi et al., European Patent App. No. 903901 A2, as applied to claims 1, 42, and 57 above and further in view of Ji et al., US Patent No. 5,623,600 and Garrison, US Patent No. 6,275,939.

As per claims 3, 44, and 59:

Tso et al. and Takahashi et al. substantially teach a method, an apparatus, and memory/mass storage as in claims 1, 42, and 57. Not explicitly disclosed is including conditioning said operation on a feature of said object, said feature including at least one of: a file name, a file type, a file-system share. However, Ji et al. teach that the file type of the requested file is taken into consideration for the scanning process. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Tso et al. and Takahashi et al. to use the file type of the requested file in order to determine whether or not it is possible for that file to be a virus based on its extension. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Ji et al. teach that if the file type of the requested file is not an executable then extra time should not be used to scan it in col. 7, lines 33-40.

Also not explicitly disclosed is a type of access associated with said user request; wherein said operation is performed for an intersection of at least one of said feature and at least one type of access. However, Garrison teaches a type of access associated with said user request wherein said operation is performed for an intersection of at least one feature and at least one type of access. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Tso et al. and Takahashi et al. to allow access based on the intersection of the file type of the requested file in order to determine whether or not it is possible for that file to be a virus based on its extension and the type of access associated with the user request. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since

Garrison teaches using some type of codeword and the user's access rights in order to determine what information should be accessible to that user in col. 7, lines 33-67.

V. Claims 8-10, 49-51, 64-66, and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tso et al., US Patent No. 6,088,803 and Takahashi et al., European Patent App. No. 903901 A2, as applied to claims 1, 42, and 57 above and further in view of Midgely et al., US Patent No. 5,604,862.

As per claims 8, 49, and 64:

Tso et al. and Takahashi et al. substantially teach the method, system, and machine-readable medium of claims 1, 42, and 57. Furthermore, Tso et al. teach setting a timeout at said server (col. 4, lines 8-17). Not explicitly disclosed is wherein said operation includes resetting said timeout in response to receiving a response from said cluster device to a protocol message asking if said cluster device is still working on said operation; and determining that said operation is successful in response to receiving a response from said cluster device before said timeout expires. However, Midgely et al. teach that if there is an unresponsive server, the replica takes over in order to respond with the data requested in order to show that the device is down. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Tso et al. and Takahashi et al. to use a timeout that will shows the device is down if it is not reset as working on the request. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Midgely et al. suggest that using a reasonable timeout can be helpful in indicating various security issue once that timeout has expired in col. 5, lines

23-45.

As per claims 9, 50, and 65:

Tso et al. and Takahashi et al. substantially teach the method, system, and machine-readable medium of claims 1, 42, and 57. Not explicitly disclosed is including assigning an access type to said cluster device, said access type allowing said cluster device to perform said operation notwithstanding user locks associated with said object. However, Midgely et al. teach the cluster device having a list that allows it access, but disallows user access at that time. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Tso et al. and Takahashi et al. to assign an access type to the cluster device, allowing the device to access the file. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Midgely et al. suggest that allowing the cluster device to perform its operations protects the integrity of the data objects in col. 6, lines 34-64.

As per claims 10, 51, and 66:

Tso et al. and Takahashi et al. substantially teach the method, system, and machine-readable medium of claims 1, 42, and 57. Not explicitly disclosed is including restricting said access type in response to at least one of: a selected set of network addresses for said cluster device, a selected set of domain names for said cluster device, a selected set of user names at said cluster device, a selected set of interfaces between said server and said cluster device. However, Midgely et al. teach that access is restricted to a selected set of user names at the cluster device. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Tso et al. and Takahashi et al. to further restrict the client's

access to a selected set of user names at the cluster device in order to ensure that the requesting user is in fact authorized to access the particular file being requested. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Midgely et al. suggest that restricting a client's access to a selected set of user names will add more security to the system so that unauthorized users are not able to access more than they are supposed to in col. 6, lines 42-64.

As per claim 75:

Tso et al. substantially teach the method for receiving a user request for an object maintained at a server (col. 2, lines 62-66); upon a request from the server, performing an operation on an object at a cluster device, said cluster device being a separate device from the server, said operation including accessing said object at said server and determining a result of processing said object at said cluster device (col. 2, line 66 – col. 3, line 5); and conditionally allowing access to said object in response to said user request based on said result (col. 3, lines 5-10). Furthermore, Tso et al. teach that there may be multiple cluster devices, where the cluster device has already been established as being a separate device from the server (col. 8, lines 50-62).

Not explicitly disclosed is selecting a cluster device from a plurality of cluster devices to perform an operation on the object according to a classification of the plurality of cluster devices, wherein the classification of the plurality of cluster devices is predetermined based on performance criterion. However, Takahashi et al. teach a load-balancing scheme where the load is measured between a hardware device and each server. Once the number of connections/response time per connection currently managed by the server is assessed, the load

condition is used to determine how to distribute incoming service requests (par. 5, technique (b)). Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Tso et al. to select a cluster device out of a plurality of cluster devices with the lowest current load condition assessed for performing an operation on the object. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Takahashi et al. suggest that a load-balancing scheme is necessary in order to maintain stability, as well as a lower response time to service requests, within a network in par. 4.

Also not explicitly disclosed is including assigning an access type to said cluster device, said access type allowing said cluster device to perform said operation notwithstanding user locks associated with said object. However, Midgely et al. teach the cluster device having a list that allows it access, but disallows user access at that time. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Tso et al. and Takahashi et al. to assign an access type to the cluster device, allowing the device to access the file. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Midgely et al. suggest that allowing the cluster device to perform its operations protects the integrity of the data objects in col. 6, lines 34-64.

VI. Claims 13, 54, and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tso et al., US Patent No. 6,088,803 and Takahashi et al., European Patent App. No. 903901 A2, as applied to claims 1, 42, and 57 above and further in view of Garrison, US Patent No. 6,275,939. As per claims 13, 54, and 69:

Tso et al. and Takahashi et al. substantially teach the method, system, and machine-readable medium of claims 1, 42, and 57. Not explicitly disclosed is including conditioning said operation on a type of access associated with said user request. However, Garrison teaches that a user's access rights are taken into consideration when a file is requested. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Tso et al. and Takahashi et al. to further restrict the client's access to a selected set of user names at the cluster device in order to ensure that the requesting user is in fact authorized to access the particular file being requested. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Garrison suggests that checking the user's status will ensure that unauthorized users cannot gain access to information they are not meant to see in col. 8, lines 1-5.

**References Cited, Not Used*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. US Patent No. 6,327,658
2. US Patent No. 6,918,113
3. US Patent No. 6,226,752

The above references have been cited because they are relevant due to the manner in which the invention has been claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadia Khoshnoodi whose telephone number is (571) 272-3825. The examiner can normally be reached on M-F: 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nadia Khoshnoodi
Examiner
Art Unit 2137
6/20/2007

NK

EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER